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Aboriginal Community Engagement in Primary Schooling: Promoting Learning through a Cross-Cultural Lens

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Abstract: This article reports on action research conducted at a primary school in rural New South Wales, Australia. The research responded to an expressed school aspiration to foster greater understanding of local Aboriginal culture, historical perspectives and knowledge systems within the school. An exploratory model was developed using a mixed methods approach to investigate non-Aboriginal teacher perceptions and self-efficacy with teaching Aboriginal and Torres Strait Islander content specified in the Australian Curriculum. A Bush Tucker Garden was established as a 'Pathway of Knowledge' acting as a vehicle for collaboration between Aboriginal and non-Aboriginal stakeholders. Through their participation in this project the teachers were brought together with local Gumbaynggirr Elders, creating a space for the sharing of social capital. Teacher cultural knowledge and understanding was strengthened, enriching the student's learning experience. The findings are of relevance to primary school teachers, curriculum stakeholders and education providers in the broader field of Aboriginal education.

Introduction

Australian Aboriginal people as knowledge holders, embody traditional cultural understandings that involve spiritual, social, environmental and educative relationships to 'country'. While Aboriginal societies are very different today compared to their earlier economic, social and demographic characteristics, their connection to country remains intrinsic to their 'being' (Langton, 2011; Langton, Palmer, Tehan & Shain, 2004). Making partnerships with Aboriginal communities brings their perspectives and cultural knowledge into the school creating a new knowledge set for all.

Harrison and Greenfield (2011) suggest non-Aboriginal tokenism in the classroom has resulted in the teaching of "stereotypes of Aboriginality" (p. 66). The research described here was designed to address non-Aboriginal teachers' efficacy to communicate authenticity and meaning about a culture they may not have knowledge of nor any personal connections with to draw upon as a 'lived experience' (Nakata, 2007a). The tension between maintaining old, historical Aboriginal ways and knowledges and demonstrating that such knowledges are alive, contemporary and changing is an on-going challenge for Australian society and education systems (Nakata, 2011). We were motivated to identify some ways to improve

curriculum and classroom pedagogies in Aboriginal education because importantly, Aboriginal and non-Aboriginal¹ perceptions and interpretations of reality differ with regard to traditions, histories, identity and culture (Pearson, 2009), and understanding and exploring these differences is key to cultural inclusivity. Our responsibility as researchers was to ensure culturally safe and respectful research was undertaken, drawing on the advocacy of Aboriginal culture as a resource (Martin, 2008).

The aim of this research was to promote a cooperative model of social inclusion and management for sustainability, thus within this framework, the research questions focused on:

- (1) In what ways can schools and teachers enrich learning with understandings of local Aboriginal narratives developed with and endorsed by Elders and community?
- (2) How do we create spaces for teaching these Aboriginal understandings and perspectives in K – 6 curriculum and more broadly, in educational policy making?
- (3) Accordingly, what knowledge, competencies, attitudes and skills do teachers consider they need to learn in relation to teaching Aboriginal understandings and perspectives?

The research aligns with an identified need highlighted through the NSW Department of Education and Communities Schooling Research Priorities to promote equity and excellence, and support continuous improvement in teacher quality and resourcing (NSW Government, 2012). The research discussed in this article is informed by the Melbourne Declaration on Educational Goals for Young Australians (Ministerial Council on Education, Employment, Training and Youth Affairs, 2008) in that the focus of the action research was developed around engendering an understanding in, and acknowledging the value of, Aboriginal culture in primary school curriculum. Core to this is the involvement of teachers working with and learning from Aboriginal Elders so they might contribute to and benefit from reconciliation between Aboriginal and non-Aboriginal Australians (Ministerial Council Education Employment Training Youth Affairs, 2008). Additionally, the research linked to professional teacher standards articulated by the Australian Institute for Teaching and School Leadership (AITSL, 2014) through the sharing of Aboriginal history in the surrounding local area by Elders and encouraging Aboriginal students to embrace and share their culture with non-Aboriginal students.

This research project identifies an unrealised and rich opportunity for cultural learning in utilising existing yet ancient plant types and provide opportunities for students to learn the value of knowledge of such plants, and knowledge that both Aboriginal and non-Aboriginal teachers and practitioners continue to teach. Furthermore, Aboriginal Rangers from NSW National Parks and Wildlife Services strengthened links between the school and the community through sustainable land management practice in the establishment of the school's new Bush Tucker garden. Aboriginal social capital and protocol (shared values and knowledge from the land) was significant to this research because their intrinsic link with 'country' provided an insight into Aboriginal customs and knowledge holders (Martin, 2008).

This study is significant because it facilitated the embedding of Aboriginal perspectives in a culturally sustaining, integrated, and cross-curriculum manner — a key priority of the new Australian Curriculum K-6 (Human Society and Its Environment). Additionally, this study focused on a key priority area in Initial Teacher Education — Aboriginal and Torres Strait Islander education. This study specifically informed appropriate content and strategies that supported teacher commitment and improved confidence in

¹ "Indigenous Australians, the Aboriginal and Torres Strait Islander people, are the original inhabitants of Australia" (Oxfam Australia, n.d, p. 2). We use the term 'Aboriginal' in this paper to identify people of Aboriginal descent and people not of Aboriginal descent as 'non-Aboriginal' NSW education policies also draw on the term Aboriginal to refer to both Aboriginal and Torres Strait Islander populations living in the state.

teaching Aboriginal and Torres Strait Islander education. For example and in relation to the NSW Education Standards Authority (2014, p.11), participating teachers reported an increase in 1) Knowledge of concepts of histories, contemporary cultures, cultural identity, 2) Understanding of and respect for Aboriginal and Torres Strait Islander histories, cultures and languages and knowledge of how to use these to promote reconciliation and 3) Awareness of local Aboriginal and Torres Strait Islander knowledge and knowledge source.

This research presents a model of collaborative social inclusion and cooperative management for sustainability. It explains how the researchers in conjunction with one NSW primary school aimed to revitalise the transmission of Aboriginal culture through local Aboriginal narratives developed with and endorsed by Aboriginal Elders and community. The research findings demonstrate that this collaborative partnership increased non-Aboriginal teachers' understanding and appreciation of local Aboriginal knowledge², and how this understanding flowed through to students in the classroom. Accordingly, this article contributes to advancing the development of strategic and culturally beneficial initiatives to enrich primary education curricula with Aboriginal cultural elements.

Background

The school Principal initiated engagement with the research team with an articulated desire to develop and foster understanding of local Aboriginal Gumbaynggirr culture, historical perspectives and knowledge systems in teaching staff and students. Underlying this was the added prospect this might flow through to the school's wider community setting. The Principal was also keen to see teachers and students working on projects with local Aboriginal community members and Aboriginal Rangers from NSW National Parks and Wildlife Services to develop and enable the school's habitat to be more accessible to the local community whilst maintaining its significant flora and fauna values. Furthermore, Aboriginal and Torres Strait Islander perspectives and knowledge were one of three cross-curriculum perspectives in the Australian Curriculum that the Public School was implementing in 2014. In addition, this study provided an opportunity for the provision of teacher professional development in the field of Aboriginal and Torres Strait Islander Education in consideration of the Australian Professional Standards for Teachers, in particular Focus Areas 1.4 and 2.4 (pp. 9&11).

The school is located on land of the people of the Gumbaynggirr nation and positioned on the last five acres of natural habitat in the immediate locality that contains much valuable flora and fauna habitat. The school enrolment comprised ninety-eight students. Twelve per cent (fifteen) of the school enrolment identified as Aboriginal and/or Torres Strait Islander students. A key aim was to establish through a section of the school site, a 'Pathway of Knowledge' as a self-guided educational walking trail of plants traditionally used by Aboriginal communities in a variety of ways. The Pathway of Knowledge symbolised respect, valuing and the bringing in of knowledges between the Aboriginal Elders, community stakeholders, Principal, volunteer participant teachers, students, and researchers.

Previously, with the help of a Parents and Community Engagement (PaCE) grant in 2012, the school undertook a number of initiatives to address concerns among the Aboriginal students about limited Aboriginal knowledges. This knowledge flows from the diverse and complex stories of the Dreaming underpinned by "morality, ethics, governance, natural

² Andrews (2006) "defines Aboriginal knowledge as accumulated knowledge which encompasses spiritual relationships, relationships with the natural environment and the sustainable use of natural resources, and relationships between people, which are reflected in language, narratives, social organisation, values, beliefs, and cultural laws and customs"

resource management and social and familial relationships that are designed to ensure sustainability and effective governance and sociality” (Grieves, 2008, p. 369). It is important for all students to learn that Aboriginal knowledges are diverse, with origins and a worldview that differ from those of European knowledges, and that the two stand alongside each other (Green & Oppliger, 2007).

Research Design

Methodology

The framework for this research draws on guiding principles of ways of knowing, ways of doing and ways of being as ontology and epistemology (Martin, 2003, p. 3):

- 1) Recognising Aboriginal worldviews, their knowledges and their realities as distinctive and vital to their existence and survival;
- 2) Honouring their social mores as essential processes through which they live, learn and situate themselves as Aboriginal people in their own lands and when in the lands of other Aboriginal people;
- 3) Emphasis of social, historical and political contexts which shape their experiences, lives, positions and futures, and
- 4) Privileging the voices, experiences and lives of Aboriginal people and Aboriginal lands.

In addition, this research drew on the Australian Institute for Teaching and School Leadership (2014), specifically from Focus Area 1.4 Strategies for teaching Aboriginal and Torres Strait Islander students. The study sought to embed the elements mandated by these teacher standards into curriculum design through best practice protocols, and in doing so form socially sustainable relationships between the staff and students and the local Aboriginal community. The research team also adhered to the Australian Government National Health and Medical Research Council (2014) roles and responsibilities of engagement, to ensure there was mutual collaboration and agreement between the research team, Gumbaynggirr Elders, the Principal and participating teaching staff at all times. This helped to safeguard the cultural values and beliefs, respect and protocols outlined by the NHMRC (2014) on the development of the research proposal and ethics application. Regular meetings and notes were documented by the lead researcher and clarified by the Gumbaynggirr Elders throughout the duration of the project. Workload recognition was forthcoming from the school and acknowledgement in reports, presentations and/or publications of those involved in the project were adhered to.

The workshop and classroom teaching and learning activities included in this research were designed to develop a relationally responsive pedagogy modelled on the 8 Ways framework that illustrates in a localised context, Aboriginal ways of knowing, doing and being and the relationships that sustain it — connecting learning to local values, needs and knowledge as a community link for centring local viewpoints in collaboration with teachers and students through hands on learning and story sharing (Department of Education and Communities, 2012).

Relevant Literature

The songlines of Aboriginal and Torres Strait Islander people connected clans from one side of the country to another. The cultural, economic, genetic and artistic conduits of the songlines brought goods, art, news, ideas, technology and marriage partners to centres of exchange (Pascoe, 2014, p. 129)

Aboriginal culture and communities are unique to Australia yet diverse in nature, across regions, clans, language groups and individuals — each containing many layers of identity (Pearson, 2009). Historically, Aboriginal language groups carry their own set of traditions, knowledge and values typically passed on to the succeeding generation within the group by Elders, caretakers who maintain the ancient lore for memorising myths, songs, and rites pertaining to technological wisdom and traditions. Resource sharing between clans was seen as a “civilising glue” (Pascoe, 2014, p. 137), steeped in long standing cultural structures with the concept of balance and continuance in a social, environmental and technological setting (Seemann, 2009; Seemann & Talbot, 1995). Yet, the dispossession of Aboriginal peoples from country and enforced suppression of cultures and languages from the early colonial settlement of the late 1700s into the 1960s depleted the transmission of knowledges (Gooda, 2011). Moreover, the Australian institutions during this period “believed they were there to supervise the disappearance, or at best submergence, of Aboriginal people and their culture” (Pascoe, 2014, p. 127).

Unquestionably, education that incorporates Aboriginal knowledges must take this into account, but also recognise that knowledges and cultures persist and are constantly changing. In many ways the work undertaken with the Gumbayngirr Elders intersected with Pascoe’s recount of recreating songlines and knowledge traditions, for example how people organised themselves into clan groups with totems according to Lore and as a way of having an ordered way of living through the magic of ‘Gurruuja’ the whale, and the significance of the habitat and plant species on school grounds that grew into the Pathway of Learning.

Turning to the contemporary classroom, Yunkaporta (2009) emphasises the importance for a “common ground” (p. 46) with Aboriginal and non-Aboriginal ways of learning — a common pedagogy that balances the two worlds in the classroom yet extends a balanced partnership between community and the school. Additionally, Paris (2012) highlights the need for a culturally sustaining pedagogy in teaching and learning, for example through the land and the native plants. This concept extends Brown’s (2010) work, which indicates socially validated learning experiences can be made from both “inside” and “outside” the classroom as an “opportunity to connect spiritually and personally with themselves, with one another, their educators and the land” (p.15).

Until the 1980s, Aboriginal and Torres Strait Islander knowledges, histories and perspectives did not feature in Australian educational curricula. Reynolds (2000) points out this practice was neither questioned nor challenged by most educators and historians and generations of Australians learnt only a colonial perspective of this history. The absence of Aboriginal and Torres Strait Islander peoples, histories and knowledges within education has contributed to misunderstandings and prejudice within the non-Aboriginal and Torres Strait Islander population (Nakata, 2007b; Reynolds, 2000; Stanner, 1968).

Following Aboriginal and non-Aboriginal representations, in 1982 the New South Wales government introduced Aboriginal knowledges and perspectives into school education through an *Aboriginal Education Policy* (Department of Education Aboriginal Education Unit, 1982). The policy aimed to address the inequality in the education of Aboriginal students, and included Aboriginal perspectives in curriculum for all students to provide a better understanding of Aboriginal society. National Aboriginal and Torres Strait Islander Education Policy (NATSIEP) were introduced in 1990 (Department of Employment, Education and Training, 1989). These initial policies have been reviewed and revised several times, emphasising the place of Indigenous knowledges and perspectives and Indigenous community involvement and decision-making. However, there continue to be mixed responses regarding teaching practice (Craven, 2011; Harrison & Greenfield, 2011), from Indigenous Australian educators (Lowe & Yunkaporta, 2013; Nakata, 2011) and more

recently from government in response to the place of Aboriginal and Torres Strait Islander perspectives within the Australian Curriculum (Wiltshire & Donnelly, 2014).

Kerwin (2011) suggests the dominant culture in Australia also dominates education curricula and as a consequence often not recognising the fundamental differences between Aboriginal and non-Aboriginal histories and perspectives. That is, the connections between people and land, resource use and language development as the spiritual and cultural fibre of social organisation (Pascoe, 2014). Yet policy changes and political commentary lead to confusion and lack of clarity for school principals and teachers about whether to incorporate Aboriginal knowledges, how to work with community members, and how and what to teach (Harrison & Greenfield, 2011).

Michie, Anlezark, and Uibo (1998) identified fragmented approaches in the teaching of Bush Tucker extant in classrooms today where the assimilationist perspective of Western science has marginalised Aboriginal science creating a void of a deep understanding about the people and without establishing a link to their culture. Pascoe (2014) points out the difference between the two scientific knowledge systems is that Western science is a controlled activity while Aboriginal science is a lifestyle – not as a primitive hunter and gatherer nomadic lifestyle (as commonly portrayed in curriculum and teaching and learning resources) but as a result of domestication. Pascoe furthers that diaries written by early explorers and colonists evidence a history of Aboriginal population and permanent dwellings, agriculture, aquaculture, baking, storage and preservation. However evidence suggests the First People's sophisticated economy, based on social, technological and environmental expertise, was ignored by Western people due to prejudice and contempt as their view was convinced that its superiority in Western science, economy and religion should direct the economy as a colonial ambition. Notwithstanding the historical backdrop, Nakata (2007a) reminds us that Aboriginal stories and practice involving the natural and social environment are kept alive through traditional language yet the stories change according to the conditions on which this knowledge and continuing practice are contingent.

For teachers, curriculum gaps and inadequate pre-service training create challenges in the classroom (Andersen, 2012; Hart, Whatman, McLaughlin, & Sharma-Brymer, 2012). We suggest this may be due to the lack of Aboriginal and Torres Strait Islander academics in higher education. This is compounded with non-Aboriginal executive staff that drives course content offerings (with little to no experience in Aboriginal and Torres Strait Islander culture). Given teachers direct curriculum content it would be reasonable to suggest there is a lack of Aboriginal and Torres Strait Islander curriculum writers at a school level. This may explain the disembodiment of information that Nakata (2007a) identifies as “ways that dislocates it from its locale, and separates it from the social institutions that uphold and reinforce its efficacy, and cleaves it from the practices that constantly renew its meanings in the here and now (p.9).

However, a common ground between mainstream and Aboriginal pedagogies can be identified, for example through Yunkaporta's ‘8 Aboriginal Ways of Learning’ (2009). The 8ways pedagogy framework is expressed through eight interconnected pedagogies that involve: 1) Narrative driven learning, 2) visualised learning processes, 3) hands on/reflective techniques, 4) use of symbols/metaphors, 5) land-based learning, 6) indirect/synergistic logic, 7) modelled/scaffold genre mastery, and 8) connectedness to community (Department of Education and Communities, 2012, p. 5). It is important to understand that this framework acts as a starting point and may be changed to suit each school's needs according to the ways and processes of the local Aboriginal community. Intrinsic to these pedagogies are values, protocols, systems and processes that cannot exist unless there is a connecting synergy or collaborative interaction between Aboriginal and non-Aboriginal teaching staff (Yunkaporta, 2009). The underlying principles of the ‘8ways’ of learning involve working out what our

worldview is as a non-Aboriginal teacher given the historically incorrect teaching about the worldview of Aboriginal ways of knowing, as a science and a sustainable way of life for generations (ontology). For Aboriginal and non-Aboriginal learners the process of connecting to the world and how their existence is shaped through their learner experiences of what we teach them and why there is a need for the knowledge of local Aboriginal history and culture (epistemology) is an important point for a teacher shift in worldview. The flow on from this suggests a catalyst for reconciliation in curriculum design and content. Additionally, in developing tools to inform our ontological and epistemological approaches (methodology), our framing for our values and the underpinning ethics, principles and respect (axiology) collectively bind our pedagogy together.

Methods

The research received approval and was conducted in accordance with the university Human Research Ethics Committee, the NSW State Education Research Process and Indigenous research protocols to recognise, respect and incorporate local Aboriginal community members and knowledges (Australian Institute of Aboriginal and Torres Strait Islander Studies, 2012). As non-Aboriginal researchers (one has Māori heritage), we were aware of the legacy of research that has denied Aboriginal Australian perspectives (Martin, 2008; Smith, 2012), and as educators, we are aware of the tensions around the teaching and the place of Aboriginal and Torres Strait Islander knowledges and perspectives within education in Australia (Nakata, 2007a; Yunkaporta & Kirby, 2011). Research participants represented different positions within this educational debate and practice, and we aimed to respect these positions to achieve outcomes that would benefit all. Teacher participants who were interviewed and surveyed gave informed consent and agreed to the use of code names for confidentiality.

The structure of this study drew on Lewin's (1946) Educational Action Research paradigm that aimed to improve teaching knowledge and practice through intergroup relations between the school and the local Aboriginal community. The Action Research process involved a series of planning, action, and fact-finding about the result of the action (Bargal, 2008). Accordingly, the process of data collection was used to determine goals and assessment of the workshop results and integrated program activities.

The study's data collection utilised a mixed methods approach. The use of quantitative and qualitative data collection methods allowed for the social/human factors to be explained in a more holistic manner (Creswell, 2003). Given the small cohort for this study, the paper-based questionnaire responses were entered into a password protected Excel spread sheet file. The pre-test baseline data and the post-test data aimed to identify thematic patterns, 1) Between teacher knowledge and perceived self-efficacy in teaching Aboriginal culture, historical perspectives and knowledge systems and 2) common perceptions, similarities and/or differences in values or attitudes.

The two interventions that formed the context of the study's data gathering, analysis, data classification and participant engagement strategies involved first, a one-day workshop as professional development for the five participating teachers, teacher aides and the Principal; and second, the implementation of an integrated studies program over two terms for the teachers and students. Prior to this the researchers met with the Principal and teachers and the local Indigenous community stakeholders that comprised an Aboriginal Elder, a botanist/secondary science teacher (employed by the school with twenty years learning about Bush Tucker with local Aboriginal community members) and Aboriginal Officers from the National Parks and Wildlife Service. Planning for the community engagement project was

discussed with the participants to ensure their needs and expectations for the project were met.

The workshop was held on a designated student free day and included activities and the provision of a set of teaching and learning resources the teachers could use in their classroom. A local Aboriginal Elder opened the workshop with Welcome to Country and shared a story about the beginning of the Pathway of Learning... *"from the magical bridge of the ocean, the pathway continues up and into the school"*.... The story explained how people organised themselves into clan groups with totems according to Lore and as a way of having an ordered way of living through the magic of 'Gurruuja', the whale. A garden walk through the existing habitat on the school grounds followed after Welcome to Country.

In this session the workshop participants explored existing plant species and animal habitat with the local Aboriginal community stakeholders. Short sessions provided by the researchers drew on Yunkaporta's (2009) 8 Ways Framework that included "learning through narrative" (p. 35) and "visualising processes" (p. 26) such as topography, land links, symbols and images. The workshop concluded with a session about Nature Journaling. This was followed by a 2D/3D design activity where the 2D 'garden design rooms' (Image 1), were overlaid on the 3D natural habitat using Google Earth software (Image 2). An unexpected outcome of the activity occurred when the Elder pointed out the shape of the natural habitat was that of a whale.

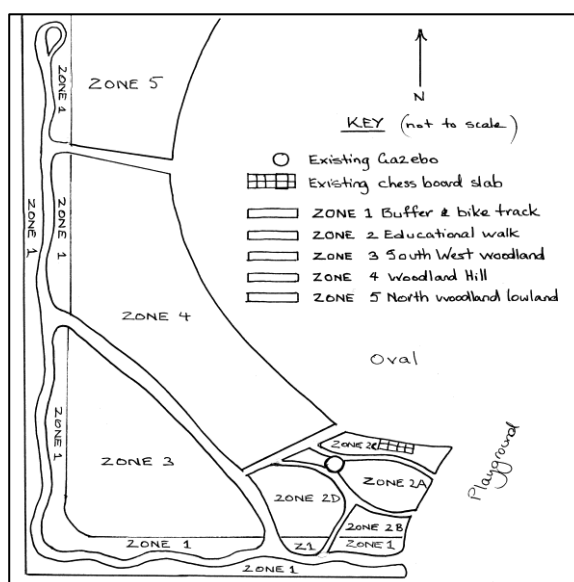


Image 1: 2D plan for Garden Design Rooms



Image 2: Natural habitat site with 2D Garden Design Room overlay

The integrated studies program was designed to connect learning to local values, needs and knowledge. One-day sessions per week over a four-week period each term were assigned for interactive learning through non-linear processes from Kindergarten to Year 6. The Aboriginal community member and the botanist/secondary science teacher provided interactive sessions with teachers and students. This involved learning about various Bush Tucker plants through fieldwork in the garden and learning about botanical science concepts.

An Aboriginal Elder engaged the students through narrative and use of metaphors about the garden site. Learning involved being place-responsive and understanding the importance of sustainable environmental practice. For example, the students' learning about Aboriginal Lore before entering the garden involved wearing red headbands. The headbands signified 'respect for yourself and your environment' and connected the students as a cohesive group of learners. The students collated reflective annotations about Aboriginal perspectives and visual information into a Nature Journal. A student from each group gave an oral recount about what they had learnt.

Data Collection

The research collected data from the participant teachers through a questionnaire survey instrument and individual semi-structured interviews. These were undertaken pre- and post the workshop and the integrated studies program. The questionnaire captured teacher demographics, their understandings of Aboriginal perspectives and knowledge in school curriculum and their self-efficacy for integrating Aboriginal content into their teaching practice. The affordances of individual interview methods in this type of research revealed shared perceptions and/or common views. This mixed method approach generated rich, multifaceted accounts of how the teachers might assign meaning to and interpret their experiences and how these accounts might be used to effect change. Teacher questions³ for both instruments were structured under two key domains of learning:

1. Knowledge of Aboriginal content, pedagogy and curriculum
2. Attitudes and self-efficacy associated with teaching Aboriginal perspectives

³ The questionnaire and interview questions are located in Appendix 1

Findings

The questionnaires and the interviews documented teacher perceptions and measured attitudinal change in the teacher's pre- and post-workshop and integrated studies program. The questionnaires recorded some changes in teachers' personal knowledge and teaching experiences with Aboriginal knowledge and histories. The next section presents a summary of these findings.

Demographics

Five female teaching staff participated in the project. Two teachers were early career teachers (20-29 years old with 1-4 years teaching experience) while three teachers aged between 30-49 years had five years or more teaching experience, two across national and international schooling contexts. All teachers were primary education trained. There was a significant difference between early career teachers and teachers with five or more years teaching experience. One teacher expressed concern of the disparity between "the white people's way of teaching and their own indigenous way of teaching and learning through their own language" in the Northern Territory, while in NSW less learning was obtained through school but more through personal connections with local Gumbaynggirr people (2606a). On the other hand, teacher 2606c, originally from South Australia (with teaching experience in New Zealand) and teacher 2606d commented Māori language and customs were deeply embedded in New Zealand curriculum yet expressed an awareness of less integration of Indigenous knowledges in NSW and in the NSW school system. The teacher was surprised at the lower level of integration, suggesting difficulties in teaching Aboriginal knowledges in NSW schools, and indicating the need for more professional development and support.

Changes in Teacher Confidence/Self Efficacy Related to Knowledge, Competencies, Attitudes and Skills

The research questions sought to identify the ways in which schools and teachers enrich learning on local Aboriginal narratives and create spaces for and develop with Elders and community. Accordingly, questions surrounding knowledge, competencies, attitudes and skills sought to identify what teachers felt they needed to learn in relation to teaching Aboriginal understandings and perspectives. The following highlight a selection of responses.

Figure 1, Question 2.1 displays a slight increase in the teachers' familiarity of local history, stories, customs and ways of life of Aboriginal people in the local area: From 3 agree, 1 uncertain, 1 strongly disagree, to 4 agree, 1 disagree. On the other hand there was a reduction in teachers' confidence in their understanding of Aboriginal pedagogies and ways of learning for Question 2.2 (Figure 1). This may have been due to the greater exposure to Aboriginal pedagogies during the activities and teachers may have realised they understand less and therefore have more to learn: From 2 Strongly Agree, 2 Agree, 1 uncertain to 4 Agree, 1 uncertain. For some teachers, integrating Aboriginal pedagogical ways with the standard, dominant curriculum and pedagogy is a challenge:

Not confident. I feel a lot better when I have an Elder in the classroom to bounce off, but I'm not overly confident doing it myself in case I say or do something wrong (2606f).

I'd like it to be better. I've been fortunate enough to go out on the local river here with two of the Aboriginal fathers and there is just so much history locally. I'd love that to be improved (2606d).

Figure 1, Question 2.3 shows the teachers expressed greater familiarity with the Aboriginal and Torres Strait Islander cross-curriculum perspectives framework in the Australian Curriculum as a result of the research activities: From 1 agree, 3 uncertain, 1 disagree to 4 agree, 1 disagree.

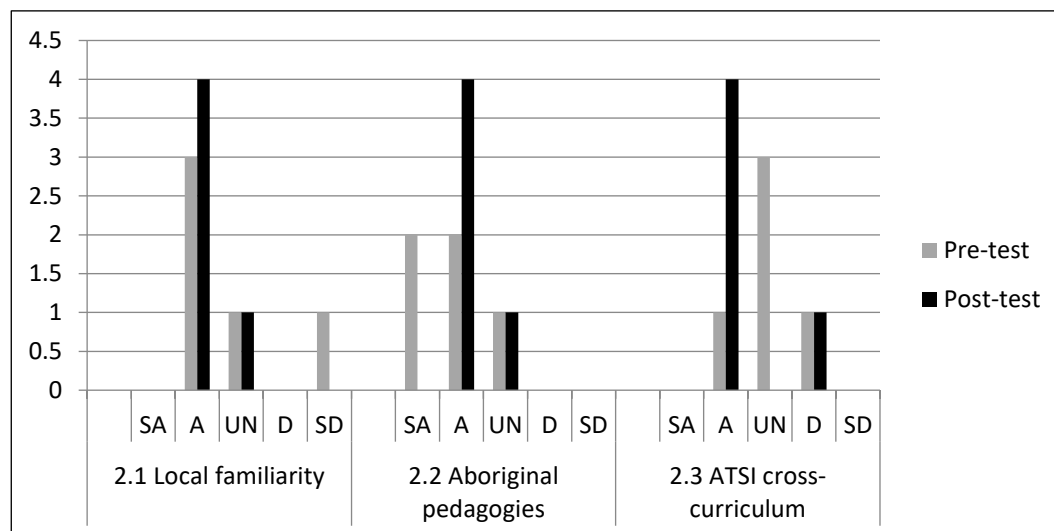


Figure 1: Pre- and post intervention teacher perceptions of familiarity with cross curriculum priorities

Figure 2, Question 2.4 indicates a slight reduction in the teachers' views on access to relevant Aboriginal resources in the school. This may be due to having greater exposure to and learning about Aboriginal knowledge and histories from the Elders during the integrated program activities, therefore the teachers may have realised the school resources they were aware of were less relevant: From 2 agree, 2 uncertain, 1 strongly disagree to 2 agree, 1 uncertain, 2 strongly disagree.

Figure 2, Question 2.5, suggests the teachers felt Aboriginal knowledge and perspectives were not appropriate for all students in the school. This may be due to a heightened awareness after the integrated program activities where teachers may have perceived a greater need for Aboriginal students to spend quality time with the Elders as a rite of passage for learning within their cultural gender groupings: From 1 agree, 2 uncertain, 1 disagree, 1 strongly disagree to 1 uncertain, 4 disagree.

Figure 2, Question 2.6 displays an increase in school and community support following the integrated program activities that included learning with and from Aboriginal community members and the school's support for the research: From 2 agree, 2 uncertain, 1 strongly disagree to 4 agree, 1 disagree.

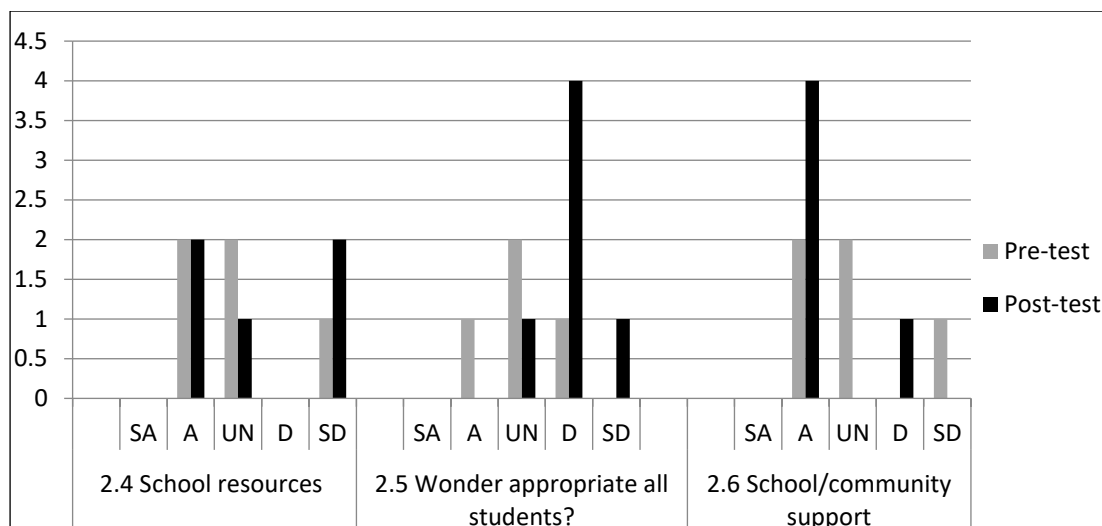


Figure 2: Pre and post teacher perceptions of access to appropriateness resources and school community knowledge

Figure 3, Question 2.7 suggests teachers felt they had difficulty integrating Aboriginal knowledges and perspectives into lessons. This may reflect some teachers' perceptions of the difficulties of fitting an Aboriginal Elder into lesson structures and the need to meet curriculum learning outcomes: From 2 agree, 1 uncertain, 2 disagree to 3 agree, 1 uncertain, 1 disagree.

Question 2.8, Figure 3 displays a slight improvement in how teachers perceived their skills and knowledge for effective teaching: From 1 strongly agree, 2 agree, 1 uncertain, 1 disagree to 3 agree, 1 uncertain, 1 disagree.

Additionally, Question 2.9 in Figure 3 shows a slight improvement in their explaining the relevance of Aboriginal knowledge and perspectives to students: From 4 disagree, 1 uncertain to 3 disagree, 1 strongly disagree, 1 uncertain.

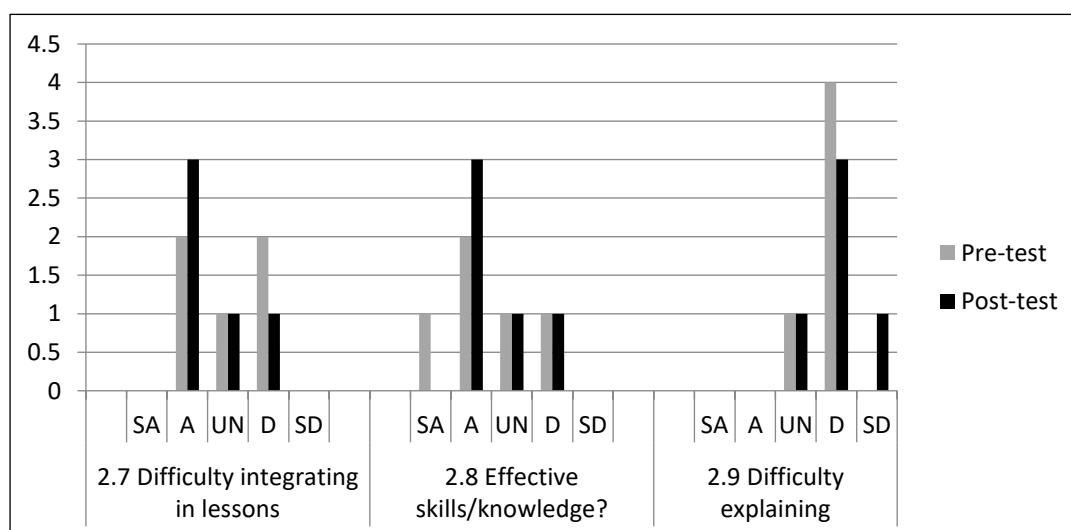


Figure 3: Pre- and post teacher perceptions of skills and knowledge for integrating and teaching Aboriginal content

Discussion of Findings

In this section we outline and discuss changes that occurred in teachers' understanding of Aboriginal knowledge and perspectives, and their motivation and self-perceived ability to incorporate these elements into their classrooms.

The teachers' reflections suggest that the teaching of Aboriginal perspectives in the school is interpreted and implemented differently in each class compounded with an absence of a sequenced, cohesive program. Moreover, the teachers recognised and valued the contribution, teaching and pedagogy of local Gumbaynggirr Elders and their importance in the students' learning. For some teachers, integrating Aboriginal pedagogical ways with the standard, dominant curriculum and pedagogy is a challenge in that the standard curriculum is not structured adequately to integrate Aboriginal pedagogies, identifying a disjuncture between the two styles of teaching or pedagogies. Furthermore, some felt the standard curriculum does not provide space for Aboriginal Elders to work in collaboration with teachers in a team teaching environment.

Below we present our key findings.

Teacher Attitudes Towards Aboriginal Knowledge, Pedagogy and Curriculum

After the two interventions, teacher responses indicated they felt they had limited depth of knowledge and understanding of Aboriginal and Torres Strait Island history, contemporary culture and languages. One teacher expressed awareness of the limitations of superficial teaching:

I have a fair understanding. I am fairly conscious of not doing it just because, not just colouring in a boomerang and calling that an Aboriginal perspective, going deeper but I don't really feel that I have the knowledge to do it (2606f)

Another teacher experienced less learning through school but more through personal connections with local Gumbaynggirr people.

Because there is quite a high population of indigenous people around here and I have, not as a teacher, but I have indigenous friends and contemporary culture that I'm involved with, including their language (2606a).

Teachers with prior experiences living and teaching in Aboriginal communities and learning in other states or countries expressed awareness of limited integration of Aboriginal knowledge in this part of NSW and in the NSW school system. Some teachers commented on a lack of public local Aboriginal knowledge in the area where the school is located, and thus their own knowledge was limited.

I originally came from South Australia so my knowledge of the Naranggari people in South Australia is quite good...In terms of this area I have next to nothing because the resources aren't available to provide that education to students. I get the feeling that people in this area don't know much about the Aboriginal culture either (2606c).

I'd say it's fairly limited, especially if we are talking local. This is my second year here. I am very new to the area. General histories I have a fairly good understanding, but specifics, not a great deal (2606g).

Differences emerged in teachers' views of Aboriginal culture and knowledge as historical dying out or 'lost' or on the other hand as contemporary and ongoing. Some teachers were aware of the value and significance of ensuring the contemporary focus on Aboriginal culture is taught, particularly through developing a relationship with the local traditional owners and custodians.

On the other hand their natural way of living has long gone and that they are still struggling with the fact to live in today's British Westernised society and that we are still partially responsible for that and how do we deal with that (2606c).

This teacher's comment suggests limited understanding of dynamic, ongoing Aboriginal cultures, as well as a sense of guilt, perhaps leading to uncertainty in approaching and working with the Aboriginal communities. There is a need to better embedded teaching standards and community interaction as they relate to the AITSL standards as this may extend and enhance such views.

However, overall teachers indicated their views on the value and place of local Aboriginal knowledge and histories in the school curriculum strengthened after the workshop and program. There was an slight increase in teachers' understanding of local knowledge and histories, reflected in both the qualitative and quantitative responses, but responses varied significantly, and the lack of confidence in teaching Aboriginal perspectives, *in following through with that knowledge (2606c)* was still evident:

A lot more focussed on the local history and the local custom or traditional stories and I've really appreciated learning about my local area and the students learning as well about their local traditions and stories behind certain land marks, the beaches and headlands and that (2606a).

While teachers felt their students' knowledge of Aboriginal and Torres Strait Island history, contemporary culture and languages was limited and varied across age levels, the teachers indicated there were significant learning benefits for the students. In some classes Aboriginal students often contributed their knowledge and experiences from their family Elders, so students were beginning to learn more through their peers by way of real world experiences, value adding to the curriculum. Moreover, the changes in teachers' Aboriginal knowledge, pedagogy and curriculum indicate the value and the need for additional and targeted professional development

Teacher Attitudes and Self-Efficacy Associated with Teaching Aboriginal Perspectives

The teachers differentiated between teaching Western or colonial perspectives that may be documented in curriculum resources, and Aboriginal perspectives, knowledge and ways of life in relation to, for example, history and the environment.

I am comfortable in teaching the areas I know about like past histories and colonisation and all that...I can do quite a good effective job in that area, but when it comes to the Aboriginal way of life and how they interact with the environment and those type of things, it's not so good...(2606g)

The teachers' survey responses indicated a reduction in their confidence in understanding of Aboriginal pedagogies following the workshop and activities. Perhaps as the teachers learned more the more they became aware of the depth and complexity of Aboriginal ways of learning, and of the challenges ahead in adapting their teaching practices accordingly:

You can see it with the Indigenous Elder just talking to her you can see the love she has for it she wants to respect it properly, and be true to herself. It is really important to get those people in. The kids really connect with them and talk to them on a different level on different things...but I do not think she liked fitting into the curriculum, rather than be organic and see what comes out of it (2606g)

Teachers' survey responses showed an increased difficulty integrating Aboriginal knowledge and perspectives into their lessons. This may reflect some teachers' uncertainties

about appearing to be ‘fitting’ an Aboriginal Elder into structured lessons that did not provide for integration. By comparison, the Bush Tucker garden classes focused on integrating Aboriginal knowledges with community input and contribution. This suggests a need for professional development in terms of further curriculum planning to integrate Aboriginal knowledges and perspectives, and some teachers expressed interest in such a program.

Further, following the two interventions teachers had reservations about their access to relevant Aboriginal resources in school. From greater exposure to and learning about Aboriginal knowledge and histories during the workshop and the integrated program, teachers may have realised the school resources were less relevant or appropriate. This highlights a need for schools to source suitable material and to develop resources with local communities, their expertise and knowledge. The lack of culturally relevant resources is often identified (Burridge & Chodkiewicz, 2012). However, despite these reservations, following the workshop and integrated program most teachers felt more confident about their skills and knowledge to teach Aboriginal knowledge and perspectives effectively into their lessons, and the relevance of Aboriginal knowledge and perspectives to all students.

Teacher Attitudes Towards Curriculum and Policy

The teachers expressed limitations in the Board of Studies, Teaching and Educational Standards NSW (BOSTES) curriculum and frustrations with support and understanding from the Department of Education and the school in relation to teaching Aboriginal perspectives and knowledges:

I don't think there is a great deal of support for teachers. There is so much jargon [in the curriculum] and there are so many different ways. It's not explicit and not succinct... It's a bit flowery (2606g)

Bringing them home, a report of the Stolen Generations Inquiry (Human Rights and Equal Opportunity Commission, 1997) identified a lack of knowledge in the wider Australian population and in order to fill that gap recommended that all state and territory primary and secondary curricula “include substantial compulsory modules on the history and continuing effects of forcible removal” (p. 255). Teaching about the Stolen Generations is now part of the NSW curriculum for Year 6 students, yet the teachers demonstrated uncertainty around how to proceed.

Another teacher discussed the value of children’s literature in reaffirming the past but was reluctant to discuss with her class the Stolen Generations and the forcible removal of children from their families and communities. The teacher’s dilemma expressed in this comment reflects the tensions around the place of Aboriginal and Torres Strait Islander perspectives in curricula, and suggests more professional development is required or perhaps rethinking how sensitive issues such as the Stolen Generations should be taught and by whom:

I have just done a unit on the arrival of the First Fleet and what happened there and we read the book about the rabbits by John Marsden and Shaun Tan [(1998)]... I actually missed the page about we stole their children because I thought the parents of the kids in my class are perhaps not ready to deal with their kids coming home and saying "did you know that the children were stolen", so I sort of glossed over that bit. (2606c)

The teachers expressed greater familiarity with Aboriginal and Torres Strait Islander cross-curriculum perspectives as a result of the two interventions. Comments on professional development moved from the pre-workshop interview to a more specific focus on the importance of learning and sharing more local knowledge, and the need for local Aboriginal

input and selection of material:

I like going on excursions to the actual sites where the stories are told. I think that's got a real reverence and it's just amazing, it's spine tingling kind of... You have the person with the knowledge, sitting down in the shade of the tree at the spot where the story is and the stories are long... keeping that bush tucker garden alive and making sure everyone is watering the plants why (2606a)

Teachers were enthusiastic about suggestions for professional development workshops and developing a new unit of work in collaboration with Aboriginal Elders:

...I think that is the way in the future to make it relevant, and it fits our curricula....An authentic Aboriginal unit the kids would enjoy and we would enjoy teaching (2606g)

This comment encapsulates where teaching should be: culturally responsive pedagogy integrating Aboriginal and Torres Strait Islander knowledges and perspectives into the curriculum, with relevant and suitable resources to support the teachers.

The teachers' comments and survey responses demonstrated the value of the intervention from this research in extending their awareness of issues and the potential in teaching Aboriginal and Torres Strait Islander knowledges and perspectives. This also suggests limitations in the teachers' pre-service education, confirming the need for ongoing professional development as identified by the Principal in initiating the research project. Further, their reflection comments indicated a need for focused and constructive professional teacher guidance in implementing community-engaged teaching and learning into the classroom. While such teaching and learning is embedded in NSW Aboriginal Education Policy documents, supporting professional development appears to be inadequate.

Beyond this lies the wider aspiration to increase the numbers of Aboriginal and Torres Strait Islander students transitioning from school to university, and more specifically in the context of the current research, the need to increase the number of Indigenous students undertaking teacher education programs (Kinnane, Wilks, Wilson, Hughes and Thomas, 2014; Wilks & Wilson, 2015). Our research has demonstrated the great value of the involvement of the Elder and of the other Indigenous community role models in the school, and the confidence and insights developed in teachers through their presence and their contributions. One major national strategy in recent years designed to achieve this objective was the More Aboriginal and Torres Strait Islander Teachers Initiative (MATSI), a four-year project (2011-2015). In addition, a 2012 evaluation by Queensland University of Technology and the Australian Council of Deans of Education Inc. of MATSI, focused on "retention, success, and rates of graduation of Aboriginal and Torres Strait Islander teacher education students" (Patton et al. 2012 cited in Kinnane, et al, 2014, p. 47). This research identified "the value of working strategically towards increasing the capacity for improving the learning experiences of Aboriginal and Torres Strait Islander teacher education students" (p. 47). This would involve learning experiences that value Indigenous knowledge and culture and engage students' strengths through acknowledging specific skills sets and supporting these in the development of western education skills and conventions. For example, Ober and Bat (2007) wrote about 'both-ways' learning involving a recognition that Aboriginal and Torres Strait Islander students bring to their teacher education studies "their own knowledge, language/s and culture and come as adults with previous life and education experience ...while they are learning ... they are building on their knowledge and skills. Students have these in both Indigenous knowledge and ways of learning; and in Western knowledge and ways of learning" (p.78).

The research findings have identified the need to increase the cultural competency of non-Indigenous teachers in terms of awareness, understanding and valuing Aboriginal and Torres Strait Islander knowledges and perspectives. This can be achieved through

appropriately designed programs of support, developing wider community partnerships, curriculum units and sustainable models of Indigenous knowledge creation and dissemination in education systems.

Limitations

The research involved one primary school and five teachers and therefore is not reflective of all school populations. The researchers recognise there may be a degree of subjectivity involved in the synthesis of findings that may affect internal and external validity due to the small sample size. Nonetheless, the findings suggest an improvement in teacher knowledge, self-efficacy and skills relating to Aboriginal content, pedagogy and curriculum after the workshop and the integrated studies program. Despite the limited size of this study, the research also suggests the teachers had become more focused, and highlights the positive effect of practical curriculum interventions.

Conclusion

The research delivered several powerful messages. The teachers and the school recognised the value of local Aboriginal pedagogies, perspectives and knowledge for Aboriginal and non-Aboriginal students and the importance of incorporating local knowledge and resource people. However, for teachers the uptake of these things into their teaching practices is complex, and they require appropriate support in terms of resourcing and professional development to further develop their knowledge base through working with Elders. Well-developed resources integrating Aboriginal and Torres Strait Islander knowledges and perspective exist (Purdie, Milgate & Bell, 2011; Price, 2012), but teachers need guidance in using them and in working with community members to embed local knowledges and Aboriginal pedagogies in a team teaching approach (Yunkaporta & Kirby, 2011). This is an on-going challenge identified by educators (Harrison & Greenfield, 2011; Nakata, 2011). The teachers in this study indicated they have struggled with how to integrate Aboriginal and Torres Strait Islander cross-curriculum perspectives into their highly structured lesson plans, classrooms and teaching days in order to provide appropriate, and what they understand as authentic, knowledge. The curriculum emphasises the need for such local participation but this process involves first building relationships and connections.

In the context of this small study, the connections forged between the school staff and Aboriginal Elders have proven to be valuable in relationship building within the school and between the university researchers and the school community. Through this project, teachers came to recognise the significance and pride in developing connections with local people and knowledge, and how this can inform their teaching. Successful integration requires guidance, planning and the development of units of work adapting the curriculum to the local knowledge and environment.

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Appendix 1

Questionnaire

I am familiar with the history, stories, customs and ways of life of Aboriginal people in the local area.

I understand Aboriginal pedagogies and ways of learning.

I am familiar with Aboriginal and Torres Strait Islander cross-curriculum perspectives framework in the Australian Curriculum.

I have access to relevant resources for teaching Aboriginal knowledges and perspectives in the school.

I wonder if teaching Aboriginal knowledges and perspectives is appropriate for all students in the school.

I have support from school leadership and community members for teaching Aboriginal knowledges and perspectives in the school.

I have difficulty integrating Aboriginal knowledges and perspectives into my lessons.

I wonder if I have the skills and knowledge to teach Aboriginal knowledges and perspectives effectively into my lessons.

I find it difficult to explain to students why they are learning Aboriginal knowledges and perspectives.

Individual interview questions

How would you describe your knowledge and understanding of Aboriginal and Torres Strait Islander history, contemporary culture and languages (before and after the workshop)?

What do you think is important about teaching Aboriginal knowledges and perspectives (before and after the workshop)?

How do you feel about your effectiveness in teaching Aboriginal knowledges and perspectives (before and after the workshop)?

How do you think Aboriginal pedagogies and ways of learning are relevant to your teaching (before and after the workshop)?

What do you see as the role of Aboriginal Elders and community members in teaching Aboriginal knowledges and perspectives (before and after the workshop)?